

From the mouth to the anus

THE MOUTH

Hi! You are inside a mouth and, in a short while, a fantastic voyage is about to start, so stay close to me! You are right inside the mouth. I'm a piece of a sandwich and will soon be joining you. Follow me! I'm taking you on a journey through the human body along the digestive tract. To begin with, I will be chopped to bits by the teeth. Each tooth works like a tool. Some of them cut, while others tear and crush. Hey presto! Here I am! While the teeth are chewing, the little pockets you can see under the tongue and at the back of the mouth produce saliva. Saliva is the liquid that is found in your mouth. This liquid helps your teeth break me up into small pieces. Watch out! In order to swallow, I'm pushed along by the tongue to help me on my way to the stomach. Watch carefully! As I go down, a little door closes the pipe which takes air to the lungs. Hey! I've gone down! Now come and slide with me along the oesophagus and down to the stomach.

THE STOMACH

That was an impressive dive! So here I am in the stomach already. It's filled with a liquid which will carry on breaking me down into smaller and smaller bits. Watch how it goes about breaking up that piece of ham. To help the liquid break me up properly, the stomach churns and mixes, a bit like a blender. Once we've been broken down so small that we have become no more than a kind of broth, we are squeezed like toothpaste into a small tube called the duodenum. So will you follow me into the duodenum? Watch out for the pylorus, we're going to get shaken about!

THE DUODENUM

In this little bit of piping that we call the duodenum, two very important liquids are mixed into my broth. One of them is called bile, which comes from the liver. The other one is called pancreatic juice and comes from the pancreas. These two liquids also act like saliva to break down my broth into even tinier pieces. Watch out! Bile and pancreatic juice are raining down on us. What a shower, eh? So this is how all these liquids end up breaking me down. They break down my butter, they finish breaking down the bit of ham and what's left of the bread. Now that I've been broken down into tiny pieces, I carry on along on my journey, pushed along by muscles. Wow! We are going even further down into the small intestine!

THE SMALL INTESTINE

The small intestine is two metres long. Come closer and look at the inside of this weird twisted tube! The inside of this long tube is covered with millions of folds that we call villi. I will pass through the villi to enter into the bloodstream and feed the body! The villi are like sieves, so they only allow the tiniest pieces through. Hi there! I'm back! This time I am so small that I can slide through the wall of the intestine and

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enter into these tiny veins. Oh, it feels really good to be in the bloodstream! My journey hasn't finished yet though! Can you see all these veins going through the intestines and to the heart? Well, I'm in one of them and soon the heart will push me towards another part of the body to build or strengthen it. Maybe I'll go into a foot? Or an arm? Or into the brain? So think of me every time you eat something. Now go and see what happens to the rest of the broth which hasn't been able to get into the bloodstream! Meanwhile, the journey continues to the large intestine!

THE LARGE INTESTINE

All my minute bits haven't been able to pass through the villi to go into the bloodstream. So they need to carry on their journey. Come and see what happens to them in the large intestine. The broth is pushed along by the muscles in the small intestine and then it flows into the large intestine. In the large intestine, there are also muscles to push me forward. There are no villi in the large intestine, but the wall lets the water that is still in the broth pass through it. This water will also go into the bloodstream to clean the body. Once the water has gone into the blood, all that remains is to get rid of the waste. Now it's the time when you really want to go to the toilet to do a poo. This time, my friends, I think the journey ends here!

From the mouth to the anus

Digestion begins in the...

- stomach
- oesophagus
- mouth

When we chew, our teeth act as...

- fingers
- eyes
- tools

During digestion, the stomach can be likened to a...

- blender
- builder
- chef

Once food has gone through the stomach it resembles...

- thick soup
- milk
- pulp

What do we call the billions of tiny folds that cover the small intestine?

- Cavities
- Villi
- Asperities

Villi increase the surface area of the small intestine to ensure better absorption.

- False
- True

Villi allow fibre to pass into your blood.

- False
- True

All useful nutrients travel through the large intestine.

- False
- True

Answers

Digestion begins in the...

stomach

Wrong! It begins before your stomach.

oesophagus

Wrong! Nothing much happens here as regards digestion.

mouth

Well done! Your teeth and saliva are at the beginning of your digestive system.

When we chew, our teeth act as...

fingers

Wrong! Try again!

eyes

Wrong! Try again!

tools

Well done! Teeth tear apart, cut up and grind food. Each kind of tooth plays a specific role!

During digestion, the stomach can be likened to a...

blender

Well done! Your stomach reduces pieces of food to a pulp.

builder

Wrong! Try again!

chef

Wrong! Try again!

Once food has gone through the stomach it resembles...

thick soup

Wrong! Nice try, though!

milk

Wrong! Try again!

pulp

Well done! Your stomach reduces food to a soft wet mass, to facilitate the following step.

What do we call the billions of tiny folds that cover the small intestine?

Cavities

Wrong! Try again!

Villi

Well done! Your small intestine is lined with a myriad of folds called villi.

Asperities

Wrong! Nice try, though!

Villi increase the surface area of the small intestine to ensure better absorption.

False

Wrong! Try again!

True

Well done! The myriad of folds which line your small intestine increase its surface area for better absorption.

Villi allow fibre to pass into your blood.

False

Well done! Fibre is not digested and is not absorbed in your small intestine.

True

Wrong! Fibre is much too bulky to be absorbed in your intestines.

All useful nutrients travel through the large intestine.

False

Well done! Only nutrients that cannot be digested or absorbed travel through your colon.

True

Wrong! That's not right!
